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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,649	08/21/2003	Scott L. Williston	GP-301767	3888
7590 01/09/2006			EXAMINER	
CHRISTOPHER DEVRIES			DUNN, DAVID R	
General Motors Corporation			ART UNIT	
Legal Staff, Mail Code 482-C23-B21			PAPER NUMBER	
P.O. Box 300			3616	
Detroit, MI 48265-3000			DATE MAILED: 01/09/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/646,649	<b>Applicant(s)</b> WILLISTON ET AL.	
	<b>Examiner</b> David Dunn	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-10,13,16-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-10,13,16-20 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

This Office Action is responsive to the amendment filed October 27, 2005.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 is indefinite as it recites "a position signal", however, "a position signal" was previously recited in claim 1. It is unclear if this is the same position signal. Additionally, in claim 8, it is unclear which position signal is meant by --said position signal--.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 6-8, 13, 16, 17, 19, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. (US 4,783,089) in view of Stevenson (US 5,167,289).

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Hamilton et al. discloses a payload monitoring system for a vehicle having a chassis, comprising: a first adjustable spring (20); a first pressure transducer (65) that generates a first pressure signal based on a pressure of said first adjustable spring device; a first sensor (see column 7, lines 45-50) configured to generate a position signal responsive to a relative height of the chassis with respect to a reference surface; a first compressor (26) configured to adjust said first adjustable spring device in response to an activation signal; a display (30); and a controller (68) communicatively coupled to said first sensor, said first compressor, and said display, wherein said controller is configured to determine a payload of the vehicle based on said first pressure signal and said position signal; provide said activation signal to said first compressor based on said payload and said position signal in order to substantially level the chassis (see column 7, lines 10-20); and present the payload to an operator via said display (see column 7, lines 36-38). Hamilton et al. discloses position sensors at each spring (see column 7, lines 48-50).

Hamilton et al. shows the step of initiating a delay period to confirm the payload change (“duty cycle”; see column 11, lines 45-55). The position signal is also used to refine the payload value (see column 7, lines 45-55; column 14, lines 40-53).

Hamilton et al. fails to show an overload warning.

Stevenson teaches an air spring load monitoring system which compares the payload value to a threshold and warns the operator if the value is greater than the threshold (see column 6, lines 25-31; column 7, lines 28-36). See also Figure 5 (“OVER”). Stevenson also notes each air spring having a pressure sensor (see Figure 2, etc).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hamilton et al. with the teachings of Stevenson to warn the operator if the vehicle was overloaded in order to protect the springs and other vehicle components from damage.

5. Claims 4, 9, 10, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. in view of Stevenson as applied above, and further in view of Lech et al. (US 6,398,227).

The combination of Hamilton et al. and Stevenson is discussed above but fails to show hydraulically adjustable springs.

Lech et al. teaches a payload monitoring system for a vehicle, comprising hydraulically (see column 3, lines 34-60) operated spring devices (20).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Hamilton et al. and Stevenson with the teachings of Lech et al. to provide hydraulic springs in order to use the system on various types of vehicles.

### ***Response to Arguments***

6. Applicant's arguments filed 10/27/05 have been fully considered but they are not persuasive. On pages 7-8, Applicant argues that Hamilton does "not disclose a system wherein the payload is determined from both position information and pressure information". However, Hamilton shows the payload being calculated from both; see column 7, lines 10-20: "the processor comparing the load determination from the calibration cycle [from pressure

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information] and desired height [position information] to the lookup table to find a concordance...”

Applicant also argues that Hamilton does not disclose the “overload warning”, however as noted by the 103 rejection above, this feature is taught by Stevenson.

### *Conclusion*

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

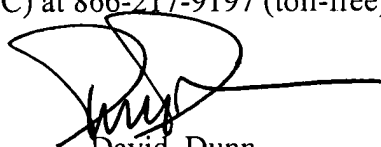
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tokuyama et al., Mantini et al., and Cochofel et al. show various suspension control systems.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Dunn whose telephone number is 571-272-6670. The examiner can normally be reached on Mon-Fri, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Dunn  
Primary Examiner  
Art Unit 3616